

Work Order ID 52185

September 17, 2009 11:39:25 AM



Page 1

Item ID: D3943-053 *FR*

Accept



Setup Start



Revision ID: A

Item Name: Chain Assembly

Stop



Start Date: 09/17/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/23/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: *mp*

Date: *09-09-18* Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

100 Weld per dwg A/R Steel rod Batch: *M111385* 0.00



Large Fab

Memo

0.00

Large Fab

ASSEMBLE BEFORE WELDING

lpl 09.09.18

(1)

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00



QC

Memo

0.00

Quality Control

Don't 09/23

120 QC5- Inspect part completeness to step on W/O 0.00



QC

Memo

0.00

Quality Control

12 09.09.23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Page 2

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Revision ID: A

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Start Date: 09/17/2009 Start Qty: 1.00

Required Date: 09/23/2009 Req'd Qty: 1.00

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:



Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



Powdercoat

Fire Red(Ref:4.3.5.10) per QSI005 4.3

0.00

Powder Coating

Memo

0.00

mask chain from this point on prior to powder coating per (note 9) on dwg

POWDER COAT:

Start Time: _____

Oven Temperature: _____

Finish Time: _____

B112733

140



QC

QC3- Inspect Part Finish

0.00

Quality Control

Memo

0.00

09-09-23

150



Packaging

Identify as per dwg & Stock Location: _____

0.00

Packaging

Memo

0.00

09-09-23

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Page 3

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Accept



Setup Start



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Stop



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Cust Item ID:

Required Date: 09/23/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/09/23 *[Signature]*

NF
09-09-23

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Picklist Print

September 17, 2009 11:39:25 AM

Page 1

Work Order ID: 52185

Parent Item: D3943-053RevA

Parent Item Name: Chain Assembly




Start Date: 09/17/2009

Required Date: 09/23/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3943-9RevA 		Manufactured	No			100	Each	0.0000	1.0000			
Chain D3954-5RevA 		Manufactured	No			100	Each	0.0000	1.0000			
Chain Lug D3954-9RevA 		Manufactured	No			100	Each	1.0000	1.0000			
GWT Chain Pin												

N/A *mf 09/17/09*

52191 mf 09-09-23

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

48344

1

1

652193 mf 09-09-23

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ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
12	1			D3943-3	HANDLE EXTENSION	
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
26			1	D3954-9	GWT CHAIN PIN	
31	1			AN4-10A	BOLT	
32	1			AN960-416	WASHER	
33	1			MS21042-4	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
41	1			S-1475	SPRING	REID SUPPLY
42	1			3408A59	BALL PLUNGER	McMASTER CARR
43	3			HX-15	SOCKET HEAD CAP SCREW 1/4-20 UNC X 0.75 LG	HASKINS

#52185

RELEASED
09/05/13

A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS	DRAWING NO.	REV. A
CHECKED		D3943	SHEET 1 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.		DATE 09.05.13	
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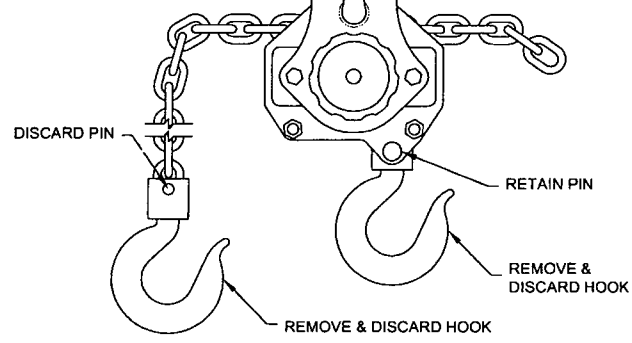
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

REMOVE AND RETAIN
RUBBER HAND GRIP

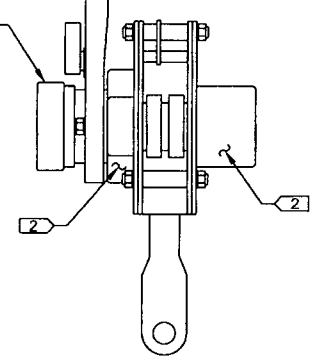


8143919 LEVER CHAIN HOIST
(SHOWN PRIOR TO MODIFICATION)
(CHAIN SHOWN SHORTENED FOR CLARITY)

AN4C10
AN960C416 WASHER
MS21043-4 NUT

3408A59
BALL PLUNGER

8143919
LEVER CHAIN HOIST



(CHAIN NOT SHOWN FOR CLARITY)

RE-INSTALL
RUBBER HAND-GRIP
HERE

D3943-3
HANDLE EXTENSION

D2690-4 LANYARD

D3949-041 FLAG

HX-15 S/H CAP SCREW

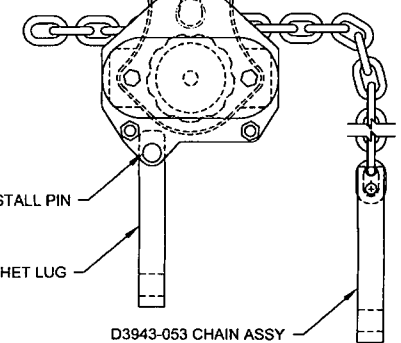
HX-15 S/H CAP SCREW
S-1475 SPRING

D3585-1 SET SCREW

RE-INSTALL PIN

D3943-7 RATCHET LUG

D3943-053 CHAIN ASSY



(CHAIN SHOWN SHORTENED FOR CLARITY)

D3943-041 GROUND HANDLING CRANK ASSEMBLY

RELEASED
29/03/03

- NOTES -041:**
- 1) MATERIAL: N/A
 - 2) FINISH: DISASSEMBLE LEVER CHAIN HOIST (ITEM 39) AND POWDER COAT "RED" (4.3.5.10) PER DART QSI 005 4.3 PARTS INDICATED
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3943-041" USING FINE POINT PERMANENT INK MARKER

DESIGN	DSTOW/ AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D3943	SHEET 2 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>N/A</i>	GROSS WEIGHT TOW CRANK ASSY NTS	
DATE	09.05.13	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

D3943-1 HANDLE

2 PL

9.75

2.00

Ø

0.41

Ø0.30
THRU

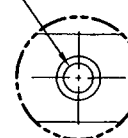
Ø0.12
THRU

D3943-7 STUD
2 PL

52185

THREAD $\frac{1}{4}$ -20 UNC-2B
2 PL

THREAD $\frac{1}{4}$ -20 UNC-2B
THRU



VIEW A-A
A5-3
(SCALE 2X) B5-3

2 PL

9.37

A B1-3

A B1-3

D3943-5 PLATE

D3943-051 HANDLE ASSEMBLY

NOTES -051:

- 1) MATERIAL : N/A
- 2) FINISH: POWDER COAT "RED" (4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.06 ALL OTHERS
PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO POWDER COATING

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3943	SHEET 3 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
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RELEASED
08/06/03

8 7 6 5 4 3 2 1

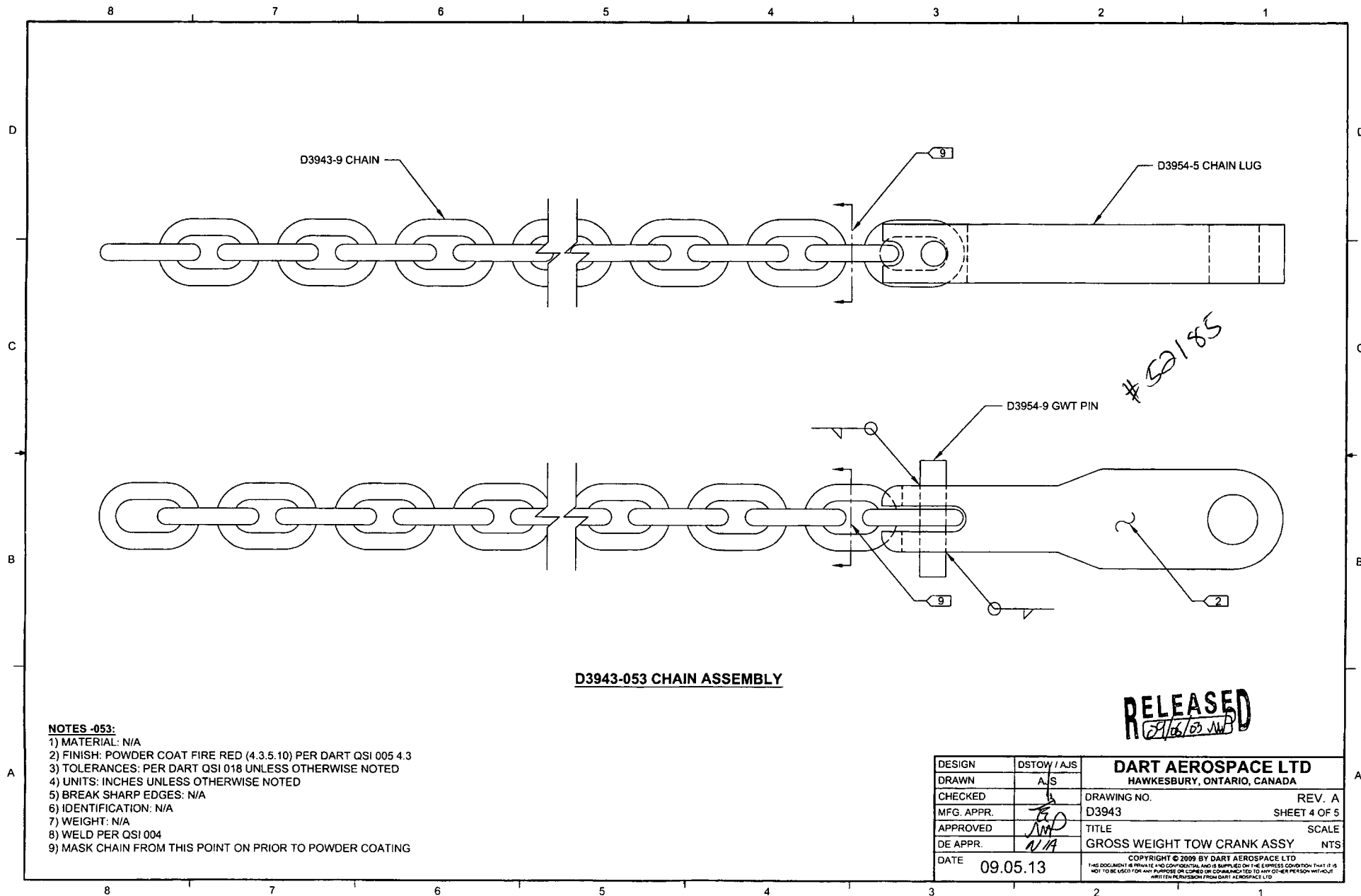
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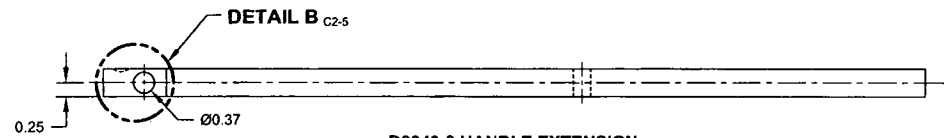
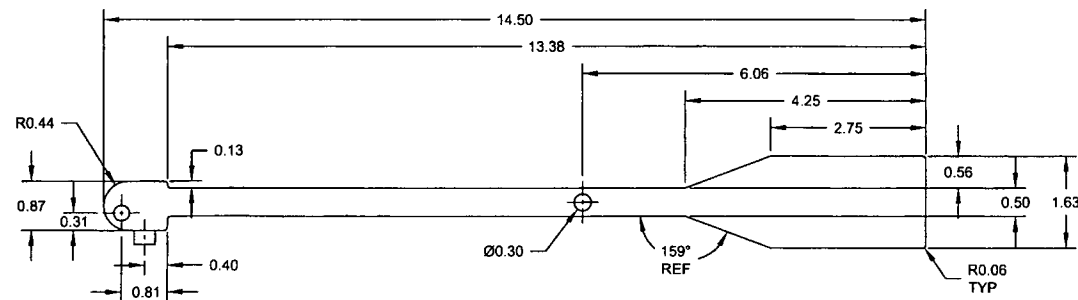
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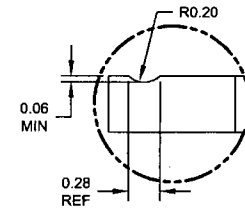
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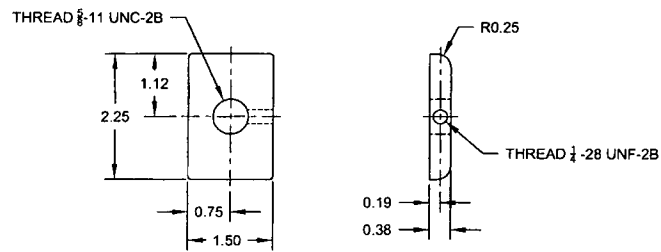


D3943-3 HANDLE EXTENSION

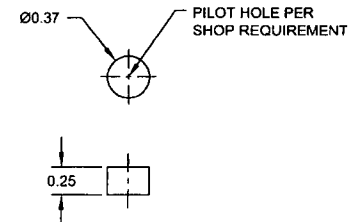


DETAIL B-B C7-5
(DIMPLE DETAIL)
(SCALE 2X)

152185



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

RELEASED
9/16/07

NOTES -11/-13:

- 1) MATERIAL -3 & -5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S
- OR : MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B
- 7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R
- 2) FINISH -3: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3 PARTS INDICATED
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
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